

# Notice of variation and consolidation with introductory note

## The Environmental Permitting (England & Wales) Regulations 2010

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BWSC North Lincs Limited

Brigg Renewable Energy Plant  
Scawby Brook  
Brigg  
North Lincolnshire  
DN20 9LT

### **Variation application number**

EPR/LP3130KG/V004

### **Permit number**

EPR/LP3130KG

# Brigg Renewable Energy Plant

## Permit number EPR/LP3130KG

### Introductory note

#### **This introductory note does not form a part of the notice.**

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies that all the conditions of the permit have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made and contains all conditions relevant to this permit.

The requirements of the Industrial Emissions Directive (IED) 2010/75/EU are given force in England through the Environmental Permitting (England and Wales) Regulations 2010 (the EPR) (as amended).

This Permit, for the operation of large combustion plant (LCP), as defined by articles 28 and 29 of the Industrial Emissions Directive (IED), is varied by the Environment Agency to implement the special provisions for LCP given in the IED, by the 1 January 2016 (Article 82(3)). The IED makes special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V.

As well as implementing Chapter III of IED, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issued. It also modernises all conditions to reflect the conditions contained in our current generic permit template.

The Operator has chosen to operate this LCP under the ELV compliance route.

The variation notice uses an updated LCP number in accordance with the most recent DEFRA IED LCP references. The new LCP reference is:

- LCP 413.

The rest of the installation is unchanged as follows:

#### Permit EPR/LP3130KG

The main features of the facility are as follows. The site occupies about 5.25 hectares of previously developed land some 500m from the River Ancholme at an elevation of 3-4m above Ordnance datum. The site is at risk from flooding. The installation is a power generation facility using predominantly straw as a fuel, with wood chip as a back-up fuel and natural gas for start-up. The fuel is combusted in a 118MWth net rated input boiler. Heat recovery is via a steam-raising boiler and power generation utilises a high efficiency steam turbine condensed in an air cooled condenser.

The principal release to the environment comprises combustion gases via a 62m stack. The requirements of the Large Combustion Plant Directive apply. Oxides of nitrogen and carbon monoxide are controlled through management of combustion conditions; e.g. staged injection of air. Acid gases are controlled through injection of hydrated lime. Fabric filters are used to capture the lime and to control the release of Dust. It is proposed to use captured lime and fly ash off site as an agricultural fertiliser and bottom ash as a soil conditioner. Demineralised water is produced using ion exchange resins which are generated using sodium hydroxide and hydrochloric acid solutions. Regeneration effluent is used for bottom ash quenching; any surplus effluent is discharged to a trade pit prior to discharge to sewer. Foul water from the boiler house, turbine buildings, flue gas treatment area, fuel storage area and fly ash silo unloading area are treated by an effluent treatment system then either reused or discharged to sewer. Rain water landing on the site is collected and discharged to sewer via an oil interceptor. Rain water from roofs goes straight to a collection tank or is channelled into off site lagoons and then into Scawby Beck.

The nearest human occupation/presence is at the adjacent Glandford power station. Castleford Tufas SSSI lies within 2km but there are no Natura 2000 sites within 10km. The site's environmental management system is not certified to BS EN ISO 14001.

A summary to the previous changes to the permit are as follows:

#### Variation EPR/LP3130KG/V002

The permit was varied at the request of the operator to reflect a change in the operator's name from ECO2 North Lincs Ltd to BWSC North Lincs Limited. We also took this opportunity to record a change in the operator's registered office address from Vision House, Oak Tree Court, Mulberry Drive, Cardiff Gate Business Park, Cardiff, CF23 8RS to 20-22 Bedford Row, London, WC1R 4JS.

#### Variation EPR/LP3130KG/V003

This variation incorporated the installation of a Hybrid SNCR/SCR NO<sub>x</sub> abatement system to meet stricter Emission Limit Values required by the Industrial Emissions Directive. Also the operating techniques were varied to clarify the arrangements for the management of residues generated by the installation and a change to the auxiliary fuel type used for plant start-up.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application received EPR/LP3130KG	Duly made 19/05/09	Application for Renewable Energy Plant.
Additional information received	15/03/10	
Permit determined EPR/LP3130KG (PAS Billing ref. LP3130KG)	10/06/10	Permit issued to ECO2 North Lincs Limited.
Notification of change of company name. EPR/LP3130KG/V002	08/10/14	Company name changed from ECO2 North Lincs Ltd to BWSC North Lincs Limited. Also change of company registered address.
Variation issued EPR/LP3130KG/V002 (PAS Billing ref. ZP3338WU)	14/10/14	Variation issued to BWSC North Lincs Limited.
Application EPR/LP3130KG/V003 (variation and consolidation)	Duly made 16/04/15	Application to vary the permit to incorporate a NO <sub>x</sub> abatement system and update the permit to modern conditions.
Variation determined EPR/LP3130KG/V003 (PAS Billing ref. XP3338AU)	22/06/15	Varied and consolidated permit issued in modern condition format.
Letter sent to the operator	04/11/14	Letter sent to the operator as part of the Environment Agency initiated review and variation to vary the permit under IED to implement the special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V. The permit is also updated to modern conditions.
Response to our letter dated 04/11/14	19/11/14	Response received from the operator.
Variation determined EPR/LP3130KG/V004 (PAS Billing ref: KP3432RQ)	22/12/15	Varied and consolidated permit issued in modern condition format. Variation effective from 01/01/2016.

End of introductory note

# Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

### Permit number

**EPR/LP3130KG**

### Issued to

**BWSC North Lincs Limited** ("the operator")

whose registered office is

**20 - 22 Bedford Row  
London  
WC1R 4JS**

company registration number 06337326

to operate an installation at

**Brigg Renewable Energy Plant  
Scawby Brook  
Brigg  
North Lincolnshire  
DN20 9LT**

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

Name	Date
Rebecca Warren	22/12/2015

Authorised on behalf of the Environment Agency

## **Schedule 1**

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2010

### Permit number

**EPR/LP3130KG**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/LP3130KG/V004 authorising,

**BWSC North Lincs Limited** ("the operator"),

whose registered office is

**20 - 22 Bedford Row**

**London**

**WC1R 4JS**

company registration number 06337326

to operate an installation at

**Brigg Renewable Energy Plant**

**Scawby Brook**

**Brigg**

**North Lincolnshire**

**DN20 9LT**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Rebecca Warren	22/12/2015

Authorised on behalf of the Environment Agency

# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

### 1.2 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) take appropriate measures to ensure the efficiency of energy generation at the permitted installation is maximised;
  - (c) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (d) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

### 1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities;
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## **2 Operations**

### **2.1 Permitted activities**

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

### **2.2 The site**

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

### **2.3 Operating techniques**

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 Without prejudice to condition 2.3.1, the activities shall be operated in accordance with the “Electricity Supply Industry IED Compliance Protocol for Utility Boilers and Gas Turbines” revision 1 dated February 2015 or any later version unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.4 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.5 The end of the start up period and the start of the shutdown period shall conform to the specifications set out in Schedule 1, tables S1.2 and S1.5
- 2.3.6 The following conditions apply where there is a malfunction or breakdown of any abatement equipment:
- Unless otherwise agreed in writing by the Environment Agency:
- (i) if a return to normal operations is not achieved within 24 hours, the operator shall reduce or close down operations, or shall operate the activities using low polluting fuels;
  - (ii) the cumulative duration of breakdown in any 12-month period shall not exceed 120 hours; and
  - (iii) the cumulative duration of malfunction in any 12-month period shall not exceed 120 hours.
- 2.3.7 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table(s) S2.2 and
  - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.8 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;



- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.

2.3.9 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

## **2.4 Improvement programme**

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

## **2.5 Pre-operational conditions**

2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4A have been completed.

# **3 Emissions and monitoring**

## **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 The emission values from emission point A1 measured during periods of abatement equipment malfunction and breakdown shall be disregarded for the purposes of compliance with Table S3.1 emission limit values.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

## **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

### **3.3 Odour**

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.2 and S3.3;
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continuous), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 & S3.3 etc unless otherwise agreed in writing by the Environment Agency.

### **3.6 Monitoring for the purposes of the Industrial Emissions Directive Chapter III**

- 3.6.1 All monitoring required by this permit shall be carried out in accordance with the provisions of Annex V of the Industrial Emissions Directive.

- 3.6.2 If the monitoring results for more than 10 days a year are invalidated within the meaning set out in condition 3.6.7, the operator shall:
- (a) within 28 days of becoming aware of this fact, review the causes of the invalidations and submit to the Environment Agency for approval, proposals for measures to improve the reliability of the continuous measurement systems, including a timetable for the implementation of those measures; and
  - (b) implement the approved proposals.
- 3.6.3 Continuous measurement systems on emission points from the LCP shall be subject to quality control by means of parallel measurements with reference methods at least once every calendar year.
- 3.6.4 Unless otherwise agreed in writing by the Environment Agency in accordance with condition 3.6.5 below, the operator shall carry out the methods, including the reference measurement methods, to use and calibrate continuous measurement systems in accordance with the appropriate CEN standards.
- 3.6.5 If CEN standards are not available, ISO standards, national or international standards which will ensure the provision of data of an equivalent scientific quality shall be used, as agreed in writing with the Environment Agency.
- 3.6.6 Where required by a condition of this permit to check the measurement equipment, the operator shall submit a report to the Environment Agency in writing, within 28 days of the completion of the check.
- 3.6.7 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3, table S3.1; the Continuous Emission Monitors shall be used such that:
- for the continuous measurement systems fitted to the LCP release points defined in Table S3.1 the validated hourly, monthly and daily averages shall be determined from the measured valid hourly average values after having subtracted the value of the 95% confidence interval;
  - the 95% confidence interval for nitrogen oxides and sulphur dioxide of a single measured result shall be taken to be 20%;
  - the 95% confidence interval for dust releases of a single measured result shall be taken to be 30%;
  - the 95% confidence interval for carbon monoxide releases of a single measured result shall be taken to be 10%;
  - an invalid hourly average means an hourly average period invalidated due to malfunction of, or maintenance work being carried out on, the continuous measurement system. However, to allow some discretion for zero and span gas checking, or cleaning (by flushing), an hourly average period will count as valid as long as data has been accumulated for at least two thirds of the period (40 minutes). Such discretionary periods are not to exceed more than 5 in any one 24-hour period unless agreed in writing. Where plant may be operating for less than the 24-hour period, such discretionary periods are not to exceed more than one quarter of the overall valid hourly average periods unless agreed in writing; and
  - any day, in which more than three hourly average values are invalid shall be invalidated.

## 3.7 Pests

- 3.7.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.7.2 The operator shall:

- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
- (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **4 Information**

### **4.1 Records**

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
  - (i) off-site environmental effects; and
  - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

### **4.2 Reporting**

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the resource efficiency metrics set out in schedule 4 table S4.2;
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- (d) where condition 2.3.6 applies, the cumulative duration of breakdown and cumulative duration of malfunction in any 12 month period.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.
- 4.2.6 Within 10 days of the notification of abatement equipment malfunction or breakdown (condition 2.3.6) the operator shall submit an Air Quality Risk Assessment as outlined in the IED Compliance Protocol (condition 2.3.2).

## 4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
    - (i) inform the Environment Agency,
    - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
    - (iii) take the measures necessary to prevent further possible incidents or accidents;
  - (b) of a breach of any permit condition the operator must immediately—
    - (i) inform the Environment Agency, and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
  - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
  - (d) of any malfunction or breakdown of abatement equipment relating to condition 2.3.6, the operator shall notify the Environment Agency within 48 hours unless notification has already been made under (a) to (c) above.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), 4.3.1 (b)(i) where the information relates to the breach of a condition specified in the permit, or 4.3.1 (d) where the information relates to malfunction or breakdown of abatement equipment shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and

- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (c) any change in the operator's name or address; and
- (d) any steps taken with a view to the dissolution of the operator.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

- (a) a decision by the Secretary of State not to re-certify the agreement;
- (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
- (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.3.8 The operator shall inform the Environment Agency in writing of the closure of any LCP within 28 days of the date of closure.

## **4.4 Interpretation**

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

# Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	Section 1.1 A(1) (a): Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more.	LCP413 - Combustion of straw and biomass fuels in a vibrating, water cooled grate furnace and generation of electricity with a steam turbine.	From receipt of raw materials to supply of electricity to the national grid. Waste types specified in Table S2.2.
<b>Directly Associated Activity</b>			
A2	Directly associated activity	Water Treatment Plant	From the receipt and raw materials to delivery of treated water to the boilers.
A3	Directly associated activity	Cooling Water System	From receipt of treated water from the water treatment plant to system blowdown.
A4	Directly associated activity	Systems for the drainage of effluent and surface water.	From receipt of effluent and surface water to discharge to surface water or release to sewer.
A5	Directly associated activity	Storage and handling of wastes produced by the installation.	From generation of wastes to dispatch of wastes from site.
A6	Directly associated activity.	Oil storage.	From receipt of raw materials to dispatch for use.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Sections 2.1 and 2.2 of the application document.	19/05/09
Response to Schedule 5 Notice Request dated 22/01/10	Response to questions 2, 8, 9, 11, 14 and 16 detailing process control.	15/03/10
Application variation	Section 3.2 Secondary NO <sub>x</sub> Abatement Measures, Section 5 NO <sub>x</sub> Abatement Operating Techniques and Controls, Section 7.1 Auxiliary Fuel and Section 7.2 Waste Transfer Arrangements.	16/04/15

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC 1	<p>The Operator shall submit a report on the performance of the installation to confirm the information provided in the application relating to releases from the installation. The report shall include:</p> <ul style="list-style-type: none"> <li>• Results from monitoring of emissions to air;</li> <li>• Monitoring of emissions to sewer (to include monitoring for dangerous substances).</li> </ul>	Within 12 months from the start of carrying out the listed activity specified in Table S1.1.
IC 2	The Operator shall submit a written report to the Environment Agency describing the performance and optimisation of the Hybrid SNCR/SCR system and combustion settings to minimise oxides of nitrogen (NO <sub>x</sub> ) emissions within the emission limit values as described in this permit with the minimisation of nitrous oxide emissions. The report shall include an assessment of the level of NO <sub>x</sub> and N <sub>2</sub> O emissions that can be achieved under optimum operating conditions.	Within 4 months of commissioning the NO <sub>x</sub> abatement systems.
IC 3	The Operator shall submit a report to confirm the net thermal input of the boiler for LCP413. The methodology used shall be based on EN12952-15 using the losses method.	30/06/16
IC 4	The Operator shall submit a report to the Environment Agency detailing analysis of produced ash, together with proposals of ongoing ash quality monitoring. The Operator shall also within this report review options for final ash disposal, including use as a soil conditioner or an agricultural fertiliser.	31/12/16
IC 5	<p>The Operator shall define the “minimum start-up load” and “minimum shut-down load” for the LCP as required by the implementing decision 2012/249/EU in terms of;</p> <ul style="list-style-type: none"> <li>(i) The output load (electricity, heat or power generated (MW) and</li> <li>(ii) This output load as a percentage of the rated thermal output of the combustion plant (%); and/or</li> <li>(iii) At least three criteria (operational parameters and/or discrete processes as detailed in the Annex) or equivalent operational parameters that suit the technical characteristics of the plant, which can be met at the end of start-up or start of shut-down as detailed in Article (9) 2012/249/EU.</li> </ul>	31/03/16

<b>Table S1.4 Pre-operational measures</b>	
<b>Reference</b>	<b>Pre-operational measures</b>
PO 1 Completed	At least 8 weeks before operations commence, the Operator shall submit a report to the Environment Agency which confirms that the appropriate pollution prevention measures, as set out in Section 2 of the Application are in place. The report shall include proposals for periodic integrity testing of all preventative measures.
PO 2 Completed	At least 6 weeks before operations commence, the Operator shall provide confirmation to the Environment Agency that an adequate documented Management System has been implemented in accordance with the proposed Environmental Management System as detailed in Section 2.7.4 of the application.
PO 3 Completed	At least 4 weeks before operation commence, the Operator shall provide confirmation to the Environment Agency that an accident Management Plan has been implemented.



<b>Table S1.4 Pre-operational measures</b>	
<b>Reference</b>	<b>Pre-operational measures</b>
PO 4	No waste ash from the installation shall be used off site as a soil conditioner, or as an agricultural fertiliser, until the Operator has supplied representative analyses of the ashes and a written justification as to why the ashes are suitable for these purposes, together with proposals for ongoing ash quality monitoring. Written agreement to these submissions is required from the Environment Agency before usage of these materials in this manner may commence.
PO 5 Completed	At least 18 months before operations commence, the Operator shall submit a detailed site drainage plan to the Environment Agency.
PO 6 Completed	At least 18 months before operations commence, the Operator shall submit written details of site surfacing together with design details of the trade pit and boiler drain pit to the Environment Agency.

<b>Table S1.5 Start-up and Shut-down thresholds (Note 1)</b>		
<b>Emission Point and Unit Reference</b>	<b>“Minimum start up load” Load in MW and as percent of rated power output (%) and steam temperature (°C), flue gas temperature (°C) and oxygen volume (%) and/or discrete processes</b>	<b>“Minimum shut-down load” Load in MW and as percent of rated power output (%) and steam temperature (°C), flue gas temperature (°C) and oxygen volume (%) and/or discrete processes</b>
A1: LCP413)	<ul style="list-style-type: none"> <li>• Generation &gt; 35.7% of MCR</li> <li>• Electrical power output &gt;11 MW</li> <li>• Start-up burner withdrawn</li> <li>• Steam Temperature exiting the boiler is at 500° C.</li> <li>• Flue gas temperature downstream of super heater is at 400° C</li> <li>• Flue gas Oxygen &lt; LCP O<sub>2</sub> reference limit of 6 Vol%</li> </ul>	<ul style="list-style-type: none"> <li>• Generation &lt; 10% MCR</li> <li>• Electrical power output &lt; 2.8MW</li> <li>• Steam Temperature exiting the boiler is &lt; 450° C</li> <li>• Flue gas Oxygen &gt; 9 Vol%</li> </ul>
Note.1: The values in this table shall be confirmed on completion of the Improvement Condition (IC5) in Table S1.3.		

## Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Gas oil	Less than 0.1% w/w sulphur content

Table S2.2 Permitted waste types and quantities for combustion	
Maximum quantity	250,000 tonnes of straw per year (or calorific equivalent of woodchip or miscanthus, up to a maximum of 22% intake for woodchip and/or miscanthus).
Waste code	Description
<b>02</b>	<b>Wastes from agriculture, aquaculture, forestry, hunting and fishing, food preparation and processing</b>
02 01	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing.
02 01 03	Plant-tissue waste
02 01 07	Wastes from forestry
<b>03</b>	<b>Wastes from wood processing and the production of panels and furniture, pulp paper and cardboard</b>
03 01	Wastes from wood processing and the production of panels and furniture
03 01 05	Sawdust, shavings, cuttings, wood, particle board, and veneer other than those mentioned in 03 01 04

## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air from biomass fired boiler >100MWth						
Emission point ref. & location	Parameter	Source	Limit (including unit) - these limits do not apply during start up or shut down.	Reference period	Monitoring frequency	Monitoring standard or method
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 413 118MWth boiler plant fired on biomass	200mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 413 118MWth boiler plant fired on biomass	220mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	LCP No. 413 118MWth boiler plant fired on biomass	400mg/m <sup>3</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Sulphur Dioxide	LCP No. 413 118MWth boiler plant fired on biomass	100mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Sulphur Dioxide	LCP No. 413 118MWth boiler plant fired on biomass	110mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Sulphur Dioxide	LCP No. 413 118MWth boiler plant fired on biomass	200mg/m <sup>3</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181

<b>Table S3.1 Point source emissions to air from biomass fired boiler &gt;100MWth</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (including unit) - these limits do not apply during start up or shut down.</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Dust	LCP No. 413 118MWth boiler plant fired on biomass	20 mg/m <sup>3</sup>	Calendar monthly mean	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Dust	LCP No. 413 118MWth boiler plant fired on biomass	22 mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Dust	LCP No. 413 118MWth boiler plant fired on biomass	40 mg/m <sup>3</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Carbon Monoxide	LCP No. 413 118MWth boiler plant fired on biomass	375 mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Carbon Monoxide	LCP No. 413 118MWth boiler plant fired on biomass	750 mg/m <sup>3</sup>	95% of validated hourly averages within a calendar year	Continuous	BS EN 14181

<b>Table S3.1 Point source emissions to air from biomass fired boiler &gt;100MWth</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (including unit) - these limits do not apply during start up or shut down.</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Hydrogen Chloride	LCP No. 413 118MWth boiler plant fired on biomass	30 mg/m <sup>3</sup>	Daily mean of validated hourly averages	Continuous	MCERTS performance standard for CEMS
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Hydrogen Chloride	LCP No. 413 118MWth boiler plant fired on biomass	60 mg/m <sup>3</sup>	95% of validated hourly averages within a calendar year	Continuous	MCERTS performance standard for CEMS
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Ammonia	LCP No. 413 118MWth boiler plant fired on biomass	-	-	Continuous	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Oxygen	LCP No. 413 118MWth boiler plant fired on biomass	-	-	Continuous As appropriate to reference	BS EN 14181
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Water Vapour	LCP No. 413 118MWth boiler plant fired on biomass	-	-	Continuous As appropriate to reference	BS EN 14181

<b>Table S3.1 Point source emissions to air from biomass fired boiler &gt;100MWth</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (including unit) - these limits do not apply during start up or shut down.</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Stack gas temperature	LCP No. 413 118MWth boiler plant fired on biomass	-	-	Continuous As appropriate to reference	Traceable to national standards
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	Stack gas pressure	LCP No. 413 118MWth boiler plant fired on biomass	-	-	Continuous As appropriate to reference	Traceable to national standards
A1 [identified as 62m high stack on drawing 15674/A1/0101 in the application]	As required by the Method Implementation Document for BS EN 15259	LCP No. 413 118MWth boiler plant fired on biomass	-	-	Pre-operation and when there is a significant operational change	BS EN 15259

<b>Table S3.2 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (incl. unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
W1 [identified as discharge to Scawby Brook on drawing 15674/A1/0101 in the application]	Oil and grease	Uncontaminated surface water drainage	No visible oil or grease	Spot check	Daily	Visual inspection

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 [identified as point S1 on drawing 15674/A1/0101 in the application]	No parameters set	Boiler blowdown, water treatment blowdown, floor washings	No parameters set	n/a	n/a	n/a

## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Emissions to air Parameters as required by Condition 3.5.1	A1	Every 3 months	1 January, 1 April, 1 July, 1 October
CEMS invalidation log	A1	Every 3 months	1 January, 1 April, 1 July, 1 October

<b>Table S4.2: Resource Efficiency Metrics</b>	
<b>Parameter</b>	<b>Units</b>
Electricity Exported	GWHrs
Heat Exported	GWHrs
Mechanical Power Provided	GWHrs
Fossil Fuel Energy Consumption	GWHrs
Non-Fossil Fuel Energy Consumption	GWHrs
Annual Operating Hours	Hrs
Water Abstracted from Fresh Water Source	m <sup>3</sup>
Water Abstracted from Borehole Source	m <sup>3</sup>
Water Abstracted from Estuarine Water Source	m <sup>3</sup>
Water Abstracted from Sea Water Source	m <sup>3</sup>
Water Abstracted from Mains Water Source	m <sup>3</sup>
Gross Total Water Used	m <sup>3</sup>
Net Water Used	m <sup>3</sup>
Hazardous Waste Transferred for Disposal at another installation	T
Hazardous Waste Transferred for Recovery at another installation	T
Non-Hazardous Waste Transferred for Disposal at another installation	T
Non-Hazardous Waste Transferred for Recovery at another installation	T
Waste recovered to Quality Protocol Specification and transferred off-site	T
Waste transferred directly off-site for use under an exemption / position statement	T

<b>Table S4.3 Chapter III Performance parameters for reporting to DEFRA</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Thermal Input Capacity for each LCP	Annually	MW
Annual Fuel Usage for each LCP	Annually	TJ



<b>Table S4.3 Chapter III Performance parameters for reporting to DEFRA</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Total Emissions to Air of NO <sub>x</sub> for each LCP	Annually	t
Total Emissions to Air of SO <sub>2</sub> for each LCP	Annually	t
Total Emissions to Air of Dust for each LCP	Annually	t
Operating Hours for each LCP (Load Factor)	Annually	hr

<b>Table S4.4 Reporting forms</b>				
<b>Media/parameter</b>	<b>Reporting format</b>	<b>Starting Point</b>	<b>Agency recipient</b>	<b>Date of form</b>
Air and energy	Form IED AR1 – SO <sub>2</sub> , NO <sub>x</sub> CO and dust annual mass emission and energy	01/01/16	National and Area Office	31/12/15
Air	Form IED CON1 – continuous monitoring	01/01/16	Area Office	31/12/15
Air	Form IED MF1 - pollutant concentrations when during any day with malfunction or breakdown of abatement plant	01/01/16	Area Office	31/12/15
LCP	Form IED HR1 – operating hours	01/01/16	National and Area Office	31/12/15
LCP	Form IED BD1 - Cumulative annual rolling malfunction and breakdown hours	01/01/16	Area Office	31/12/15
CEMS	Form IED CEM1 - invalidation log	01/01/16	Area Office	31/12/15
Resource efficiency	Form IED REM1 – resource efficiency annual report	01/01/16	National and Area Office	31/12/15
Water	Form Water1 - or other form as agreed in writing by the Environment Agency	01/01/16	Area office	31/12/15

# Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

## Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

<b>(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution</b>	
<b>To be notified within 24 hours of detection</b>	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

<b>(c) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

## Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator

## Part C Malfunction or Breakdown of LCP abatement equipment

Permit Number	
Name of operator	
Location of Facility	
LCP Number	
Malfunction or breakdown	
Date of malfunction or breakdown	

<b>(a) Notification requirements for any malfunction and breakdown of abatement equipment as defined by the Industrial Emission Directive*.</b>	
<b>To be notified within 48 hours of abatement equipment malfunction and breakdown</b>	
Time at which malfunction or breakdown commenced	
Time at which malfunction or breakdown ceased	
Duration of the breakdown event in hours and minutes	
Reasons for malfunction or breakdown	
Where the abatement plant has failed, give the hourly average concentration of all measured pollutants.	
Cumulative breakdown operation in current year (at end of present event)	
Cumulative malfunction operation in current year (at end of present event)	
<b>Name**</b>	
<b>Post</b>	
<b>Signature **</b>	
<b>Date</b>	

\* See section 3.6 and Appendix E of ESI Compliance Protocol for guidance

\*\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“Air Quality Risk Assessment” has the meaning given in Annex D of IED Compliance Protocol for Utility Boilers and Gas Turbines.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“background concentration” means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

“biomass” means:

- (a) vegetable matter from agriculture and forestry;
- (b) vegetable waste from the food processing industry, if the heat generated is recovered;
- (c) fibrous vegetable waste from virgin pulp production and from production of paper from pulp, if it is co-incinerated at the place of production and the heat generated is recovered;
- (d) cork waste; and
- (e) wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating, and which includes in particular such wood waste originating from construction and demolition waste.

“base load” means: (i) as a mode of operation, operating for >4000hrs pa; and (ii) as a load, the maximum load under ISO conditions that can be sustained continuously, i.e. maximum continuous rating.

“breakdown” has the meaning given in the ESI IED Compliance Protocol for Utility Boilers and Gas Turbines.

“calendar monthly mean” means the value across a calendar month of all validated hourly means.

“CEN” means Comité Européen de Normalisation.

“Combustion Technical Guidance Note” means IPPC Sector Guidance Note Combustion Activities, version 2.03 dated 27th July 2005 published by Environment Agency.

“disposal”. Means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“DLN” means dry, low NO<sub>x</sub> burners.

“dynamic emission limit value” (DELV) means an emission limit that varies in accordance with Article 40 of the Industrial Emissions Directive.

“emissions to land” includes emissions to groundwater.

“Energy efficiency” the ISO base load net plant efficiency means the performance value established by acceptance testing following commissioning or performance testing following improvements made to the plant that could affect the efficiency.

“Energy efficiency” the annual net plant energy efficiency means the value calculated from the operational data collected over the year.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions.

“large combustion plant” or “LCP” is a combustion plant or group of combustion plants discharging waste gases through a common windshield or stack, where the total thermal input is 50 MW or more, based on net calorific value. The calculation of thermal input, excludes individual combustion plants with a rated thermal input below 15MW.

“low polluting fuels” means biomass or coal with an average as-received sulphur content of less than 0.4% by mass as described in the ESI IED Compliance Protocol for Utility Boilers and Gas Turbines.

“malfunction” has the meaning given in the ESI IED Compliance Protocol for Utility Boilers and Gas Turbines.

“MCERTS” means the Environment Agency's Monitoring Certification Scheme.

“MCR” means maximum continuous rating.

“MSDL” means minimum shut-down load as defined in Implementing Decision 2012/249/EU.

“MSUL” means minimum start-up load as defined in Implementing Decision 2012/249/EU.

“Natural gas” means naturally occurring methane with no more than 20% by volume of inert or other constituents.

“ncv” means net calorific value.

“operational hours” are whole hours commencing from the first unit ending start up and ending when the last unit commences shut down.

Pests” means Birds, Vermin and Insects.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from gas turbine or compression ignition engine combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen content of 15% dry for liquid and gaseous fuels; and/or
- in relation to emissions from combustion processes comprising a gas turbine with a waste heat boiler, the concentration in dry air at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen

content of 15% dry, unless the waste heat boiler is operating alone, in which case, with an oxygen content of 3% dry for liquid and gaseous fuels; and/or

- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

“year” means calendar year ending 31 December.

## Schedule 7 – Site plan



END OF PERMIT